

## **AGENDA ITEM # V.**



### Brief Pinyon Juniper Sagebrush Ecosystems July 23, 2016

Wildland  
Ecosystem  
Specialists  
Team LLC

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Wildland Ecosystem Specialists Team (WEST) is pleased to provide this update on the work performed under the proposal submitted to the Five County and Six County Association of Governments (AOG) in April of this year. Since that meeting a contract has been signed with both AOGs, administrative work completed, scopes of work prepared and tasks initiated as described in the original proposal. The objectives of this brief are to first to make you aware of the work being completed by WEST and equally important, provide an opportunity for you to either make comments or ask questions regarding the work being performed.

As described in our proposal submitted in April, the objective is to identify wildlife habitat, primarily in the sagebrush vegetation type and within the 11 counties, where its value, not only as wildlife habitat but as range for domestic livestock, is being comprised by the invasion of pinyon and/or juniper. During Phase I maps of sagebrush and pinyon/juniper interfaces within all 11 counties are being prepared and through field reconnaissance will be refined and enhanced. During Phase II selected study areas will be sampled and from data collected at those sites, recommendation made as to management actions for improvement of the health of sagebrush communities and thus improve the habitat for key wildlife species and the range for domestic livestock.

Accomplishment to date include administrative actions, project coordination with local scientists with pertinent expertise, and initial project implementation. Shortly after the contract was signed Dr. McArthur solicited and secured the cooperation of Dr. R. Doug Ramsey of the Remote Sensing and GIS laboratory at Utah State University. He has decades of experience with vegetation mapping and will be a key player in developing distribution maps of the sagebrush pinyon/juniper interfaces within the 11 counties, utilizing the latest digital imagery. The services of Dr. Randy Larsen of the Wildlife Ecology Laboratory at Brigham Young University have also been obtained. Dr. Larsen has conducted research and published multiple papers on wildlife habitat assessments, specifically the Greater Sage-grouse. Dr. Robin Tausch, an emeritus scientist of the Forest Service's Rocky Mountain Research Station, Reno, NV, an expert in western pinyon-juniper ecosystems, is also part of the team of specialists.



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In mid-June Drs. McArthur, Ramsey, Larsen and Anderson met in Salt Lake City to coordinate efforts and identify specific scopes of work for members of the team. Dr. Ramsey and other specialists at the Remote Sensing and GIS Laboratory at Utah State will develop maps of pinyon/juniper distributions across the 11 southwestern Utah counties using existing data generated by the U.S. Geological Survey, Landfire Existing land-cover maps, as well as the high-resolution pinyon/juniper canopy cover database used in the USDA-NRCS Sage Grouse initiative. Maps are currently being generated and will be available in early August, if not sooner, depicting areas of pinyon/juniper expansion into sagebrush communities and sites that will maximize benefits from restoration and/or management actions.

Concurrently Dr. Larsen is preparing a document on the value of sagebrush communities for the Greater Sage-grouse as well as other sagebrush obligate species and other species such as mule deer dependent on sagebrush for their well-being but not sagebrush obligates. Identifying such parameters and minimum habitat requirements for the Sage-grouse. He is currently summarizing relevant literature that will provide information applicable over all 11 counties. Information can be incorporated into local planning documents, as well as during the implementation of the management of sagebrush communities for wildlife habitat. He will give particular attention to the relationship between sagebrush obligates and other sagebrush dependent species and invasion of sagebrush by pinyon and/or juniper –especially juniper. An outline is being prepared with draft document scheduled for completion by mid-September and final by mid-October.

Once maps are ready, Drs. McArthur and Anderson will go to the field to verify that mapped areas of sagebrush communities being invaded by pinyon/juniper are accurate. The procedure used for this verification will be a sampling method proposed by Dr. Tausch in which four parallel transects are used to estimate tree cover. The amount of tree cover will then determine the Phase of pinyon/juniper cover: Phase I; 33% or less tree cover; 33-66% for Phase II and  $\geq 67\%$  for Phase III. All three phases of tree cover will be targeted but field studies will especially concentrate on the Phase I areas, typically a healthy sagebrush community with the beginning of pinyon and/or juniper invasion – especially juniper.



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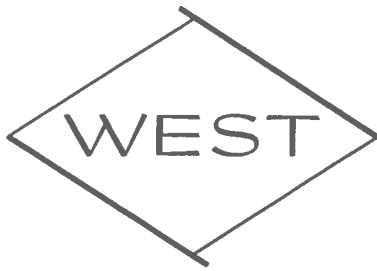
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A second emphasis by Drs. McArthur and Anderson is to coordinate efforts with other consultants as necessary and appropriate. Contact with county Resource Management Plan preparers/writers as well as county commissioners and county points of contact, will be accommodated as requested. Mr. Bremner, the natural resource writer for Garfield County in the Five County AOG and Piute County in the Six County AOG, has already been contacted and a discussion with him and others will occur in the near future. The objective is to ensure work being proposed and performed by WEST meets the needs of the counties. Drs. McArthur and Anderson will meet with Kane County Commissioner, Jim Matson, the Five County Natural Resource Technical Chair and May Reynolds, the natural resource writer for Kane County, on August 3 to discuss the specifics of the items mentioned in this brief and answer any questions they may have. Similar meetings will be arranged as needed in the future to ensure county needs are met and questions answered.

Respectively,

E. Durant McArthur, Lead Scientist

Dave Anderson, Scientist



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Please find enclosed a brief describing actions completed by Wildland Ecosystem Specialists Team LLC (WEST), under contract with the Five and Six County Association of Governments. The brief was prepared at the request of Mr. Russ Cowely and Mr. Thiriot, Executive Directors for the Six and Five County Association of Governments, respectively,

The work completed to date under Phase I of the project is related to the delineation and assessment of sagebrush pinyon-juniper interfaces across all 11 counties. After review of the brief if there should be any questions or comments, please feel free to contact either Dr. McArthur or myself. Also, if any would appreciate a personal visit we would be willing to make such arrangements.

We look forward to future interactions and coordination on this very important project.

Regards

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Let me  
know if this  
was or was not  
what you were  
requesting  
THX Dave